

105TH CONGRESS  
1ST SESSION

# H. R. 2697

To amend the Public Health Service Act to expand and intensify programs of the National Institutes of Health with respect to research and related activities concerning osteoporosis and related bone diseases.

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## IN THE HOUSE OF REPRESENTATIVES

OCTOBER 22, 1997

Ms. EDDIE BERNICE JOHNSON of Texas (for herself, Mrs. MALONEY of New York, Mrs. MORELLA, Ms. WOOLSEY, Mr. PASCRELL, Mr. DELLUMS, and Mr. DINGELL) introduced the following bill; which was referred to the Committee on Commerce

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## A BILL

To amend the Public Health Service Act to expand and intensify programs of the National Institutes of Health with respect to research and related activities concerning osteoporosis and related bone diseases.

1       *Be it enacted by the Senate and House of Representa-*  
2       *tives of the United States of America in Congress assembled,*

3       **SECTION 1. SHORT TITLE.**

4       This Act may be cited as the “Osteoporosis and Re-  
5       lated Bone Diseases Research Act of 1997”.

6       **SEC. 2. FINDINGS.**

7       The Congress finds that—

1           (1) osteoporosis, or porous bone, is a condition  
2           characterized by an excessive loss of bone tissue and  
3           an increased susceptibility to fractures of the hip,  
4           spine, and wrist;

5           (2) osteoporosis is a threat to an estimated  
6           28,000,000 Americans, 80 percent of whom are  
7           women, many of whose cases go undiagnosed be-  
8           cause the condition develops without symptoms until  
9           a strain, bump, or fall causes a fracture;

10          (3) between 3 and 4 million Americans have  
11          Paget's disease, osteogenesis imperfecta,  
12          hyperparathyroidism, and other related metabolic  
13          bone diseases;

14          (4) osteoporosis is responsible for 1,500,000  
15          bone fractures annually, including more than  
16          300,000 hip fractures, 700,000 vertebral fractures,  
17          200,000 fractures of the wrist, and the remaining  
18          fractures at other sites;

19          (5) 1 of every 2 women and 1 of every 8 men  
20          over age 50 will develop fractures associated with  
21          osteoporosis in their lifetimes;

22          (6) direct medical costs of osteoporosis are esti-  
23          mated to be \$13,800,000,000 annually for the Unit-  
24          ed States, not including the costs of family care and  
25          lost work for caregivers;

1           (7) direct medical costs of osteoporosis are ex-  
2           pected to increase precipitously because the propor-  
3           tion of the population comprised of older persons is  
4           expanding and each generation of older persons  
5           tends to have a higher incidence of osteoporosis than  
6           preceding generations;

7           (8) technology now exists, and new technology  
8           is developing, that will permit early diagnosis and  
9           prevention of osteoporosis as well as management of  
10          the condition once it has developed;

11          (9) funding for research on osteoporosis and re-  
12          lated bone diseases is severely constrained at key re-  
13          search institutes, including the National Institute of  
14          Arthritis and Musculoskeletal and Skin Diseases, the  
15          National Institute on Aging, the National Institute  
16          of Diabetes and Digestive and Kidney Diseases, the  
17          National Institute of Dental Research, and the Na-  
18          tional Institute of Child Health and Human Devel-  
19          opment;

20          (10) further research is needed to improve med-  
21          ical knowledge concerning—

22                (A) cellular mechanisms related to the  
23                processes of bone resorption and bone forma-  
24                tion, and the effect of different agents on bone  
25                remodeling;

1 (B) risk factors for osteoporosis, including  
2 newly discovered risk factors, risk factors relat-  
3 ed to groups not ordinarily studied (such as  
4 men and minorities), risk factors related to  
5 genes that help to control skeletal metabolism,  
6 and risk factors relating to the relationship of  
7 aging processes to the development of  
8 osteoporosis;

9 (C) bone mass measurement technology,  
10 including more widespread and cost-effective  
11 techniques for making more precise measure-  
12 ments and for interpreting measurements;

13 (D) calcium (including bioavailability, in-  
14 take requirements, and the role of calcium in  
15 building heavier and denser skeletons), and vi-  
16 tamin D and its role as an essential vitamin in  
17 adults;

18 (E) prevention and treatment, including  
19 the efficacy of current therapies, alternative  
20 drug therapies for prevention and treatment,  
21 and the role of exercise; and

22 (F) rehabilitation; and

23 (11) further educational efforts are needed to  
24 increase public and professional knowledge of the

1 causes of, methods for avoiding, and treatment of  
2 osteoporosis.

3 **SEC. 3. OSTEOPOROSIS RESEARCH.**

4 Subpart 4 of part C of title IV of the Public Health  
5 Service Act (42 U.S.C. 285d et seq.) is amended by adding  
6 at the end the following new section:

7 “RESEARCH ON OSTEOPOROSIS AND RELATED DISEASES

8 “SEC. 442A. (a) EXPANSION OF RESEARCH.—The  
9 Director of the Institute, the Director of the National In-  
10 stitute on Aging, the Director of the National Institute  
11 of Diabetes and Digestive and Kidney Diseases, the Direc-  
12 tor of the National Institute of Dental Research, and the  
13 Director of the National Institute of Child Health and  
14 Human Development shall expand and intensify research  
15 on osteoporosis and related bone diseases. The research  
16 shall be in addition to research that is authorized under  
17 any other provision of law.

18 “(b) MECHANISMS FOR EXPANSION OF RESEARCH.—  
19 Each of the Directors specified in subsection (a) shall, in  
20 carrying out such subsection, provide for one or more of  
21 the following:

22 “(1) Investigator-initiated research.

23 “(2) Funding for investigators beginning their  
24 research careers.

25 “(3) Mentorship research grants.

26 “(c) SPECIALIZED CENTERS OF RESEARCH.—

1           “(1) IN GENERAL.—The Director of the Insti-  
2           tute, after consultation with the advisory council for  
3           the Institute, shall make grants to, or enter into  
4           contracts with, public or nonprofit private entities  
5           for the development and operation of centers to con-  
6           duct research on osteoporosis and related bone dis-  
7           eases. Subject to the extent of amounts made avail-  
8           able in appropriations Acts, the Director shall pro-  
9           vide for not less than three such centers.

10           “(2) ACTIVITIES.—Each center assisted under  
11           this subsection—

12                   “(A) shall, with respect to osteoporosis and  
13                   related bone diseases—

14                           “(i) conduct basic and clinical re-  
15                           search;

16                           “(ii) develop protocols for training  
17                           physicians, scientists, nurses, and other  
18                           health and allied health professionals;

19                           “(iii) conduct training programs for  
20                           such individuals;

21                           “(iv) develop model continuing edu-  
22                           cation programs for such professionals;  
23                           and

24                           “(v) disseminate information to such  
25                           professionals and the public;

1           “(B) may use the funds to provide stipends  
2           for health and allied health professionals en-  
3           rolled in training programs described in sub-  
4           paragraph (A)(iii); and

5           “(C) shall use the facilities of a single in-  
6           stitution, or be formed from a consortium of co-  
7           operating institutions, meeting such require-  
8           ments as may be prescribed by the Director of  
9           the Institute.

10          “(3) DURATION OF SUPPORT.—Support of a  
11          center under this subsection may be for a period not  
12          exceeding 5 years. Such period may be extended for  
13          one or more additional periods not exceeding 5 years  
14          if the operations of such center have been reviewed  
15          by an appropriate technical and scientific peer re-  
16          view group established by the Director and if such  
17          group has recommended to the Director that such  
18          period should be extended.

19          “(d) DEFINITION OF RELATED BONE DISEASES.—  
20          For purposes of this section, the term ‘related bone dis-  
21          eases’ includes—

22               “(1) Paget’s disease, a bone disease character-  
23               ized by enlargement and loss of density with bowing  
24               and deformity of the bones;

1           “(2) osteogenesis imperfecta, a familial disease  
2       marked by extreme brittleness of the long bones;

3           “(3) hyperparathyroidism, a condition charac-  
4       terized by the presence of excess parathormone in  
5       the body resulting in disturbance of calcium metabo-  
6       lism with loss of calcium from bone and renal dam-  
7       age;

8           “(4) hypoparathyroidism, a condition character-  
9       ized by the absence of parathormone resulting in  
10      disturbances of calcium metabolism;

11          “(5) renal bone disease, a disease characterized  
12      by metabolic disturbances from dialysis, renal trans-  
13      plants, or other renal disturbances;

14          “(6) primary or postmenopausal osteoporosis  
15      and secondary osteoporosis, such as that induced by  
16      corticosteroids; and

17          “(7) other general diseases of bone and mineral  
18      metabolism including abnormalities of vitamin D.

19      “(e) AUTHORIZATIONS OF APPROPRIATIONS.—

20          “(1) NATIONAL INSTITUTE OF ARTHRITIS AND  
21      MUSCULOSKELETAL AND SKIN DISEASES.—For the  
22      purpose of carrying out this section through the Na-  
23      tional Institute of Arthritis and Musculoskeletal and  
24      Skin Diseases, there are authorized to be appro-  
25      priated \$17,000,000 for each of the fiscal years



1 1999 through 2001, and such sums as may be nec-  
2 essary for each subsequent fiscal year.

3 “(2) NATIONAL INSTITUTE ON AGING.—For the  
4 purpose of carrying out this section through the Na-  
5 tional Institute on Aging, there are authorized to be  
6 appropriated \$10,000,000 for each of the fiscal  
7 years 1999 through 2001, and such sums as may be  
8 necessary for each subsequent fiscal year.

9 “(3) NATIONAL INSTITUTE OF DIABETES AND  
10 DIGESTIVE AND KIDNEY DISEASES.—For the pur-  
11 pose of carrying out this section through the Na-  
12 tional Institute of Diabetes and Digestive and Kid-  
13 ney Diseases, there are authorized to be appro-  
14 priated \$10,000,000 for each of the fiscal years  
15 1999 through 2001, and such sums as may be nec-  
16 essary for each subsequent fiscal year.

17 “(4) NATIONAL INSTITUTE OF DENTAL RE-  
18 SEARCH.—For the purpose of carrying out this sec-  
19 tion through the National Institute of Dental Re-  
20 search, there are authorized to be appropriated  
21 \$5,000,000 for each of the fiscal years 1999 through  
22 2001, and such sums as may be necessary for each  
23 subsequent fiscal year.

24 “(5) NATIONAL INSTITUTE OF CHILD HEALTH  
25 AND HUMAN DEVELOPMENT.—For the purpose of

1 carrying out this section through the National Insti-  
2 tute of Child Health and Human Development, there  
3 are authorized to be appropriated \$5,000,000 for  
4 each of the fiscal years 1999 through 2001, and  
5 such sums as may be necessary for each subsequent  
6 fiscal year.

7 “(6) SPECIALIZED CENTERS OF RESEARCH.—  
8 For the purpose of carrying out subsection (c), there  
9 are authorized to be appropriated \$3,000,000 for  
10 each of the fiscal years 1999 through 2001, and  
11 such sums as may be necessary for each subsequent  
12 fiscal year.

13 “(7) RELATION TO OTHER PROVISIONS.—Au-  
14 thorizations of appropriations under this subsection  
15 are in addition to amounts authorized to be appro-  
16 priated for biomedical research relating to  
17 osteoporosis and related bone diseases under any  
18 other provision of law.”.

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